



# SF21 THRU SF26

## GLASS PASSIVATED SUPER FAST RECTIFIER

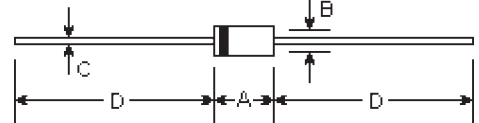
Reverse Voltage - 50 to 600 Volts

Forward Current - 2.0 Amperes

### Features

- High reliability
- Low leakage
- Low forward voltage
- High current capability
- Super fast switching speed
- High surge capability
- Good for switching mode circuit
- Glass passivated junction

### DO-15



### Mechanical Data

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD-202E method 208C guaranteed
- **Mounting Position:** Any
- **Weight:** 0.014 ounce, 0.395 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.228	0.299	5.8	7.6	
B	0.102	0.142	2.6	3.6	φ
C	0.028	0.034	0.71	0.86	φ
D	1.000	-	25.40	-	

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	SF21	SF22	SF23	SF24	SF25	SF26	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	300	400	600	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	210	280	420	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	300	400	600	Volts
Maximum average forward current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	2.0						Amps
Peak forward surge current, I <sub>FSM</sub> (surge): 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I <sub>FSM</sub>	75.0						Amps
Maximum forward voltage at 2.0A DC	V <sub>F</sub>	0.95				1.27	1.75	Volts
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =150°C	I <sub>R</sub>	5.0 50.0						μ A
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	35.0						nS
Typical junction capacitance (Note 2)	C <sub>J</sub>	30				20		μ F
Operating and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150						°C

Notes:

(1) Test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

## RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

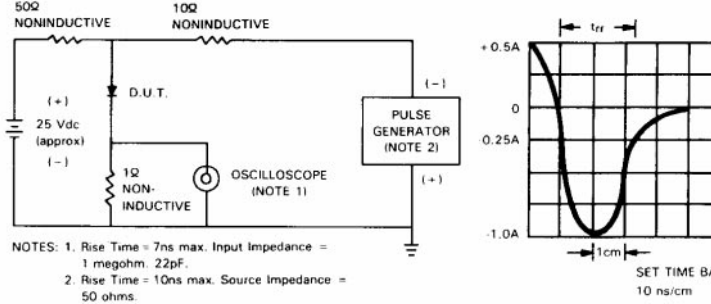


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

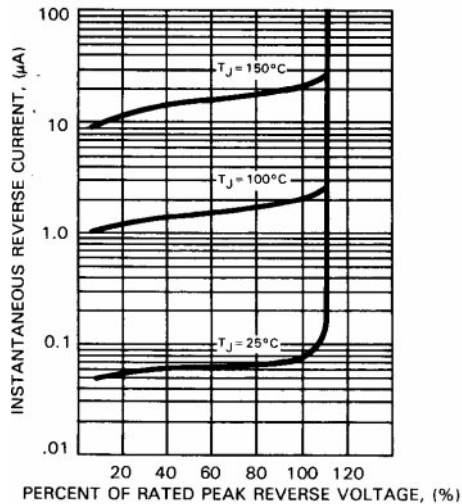


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

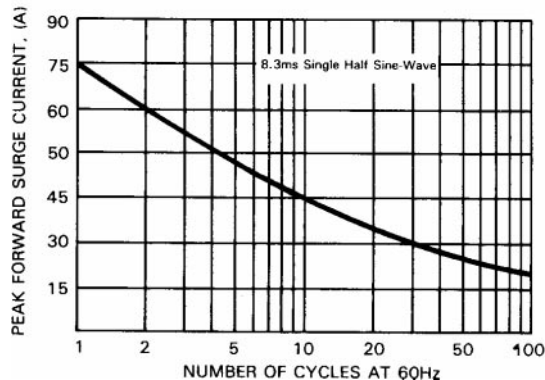


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

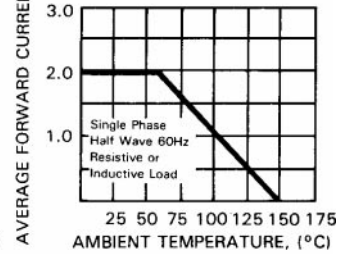


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

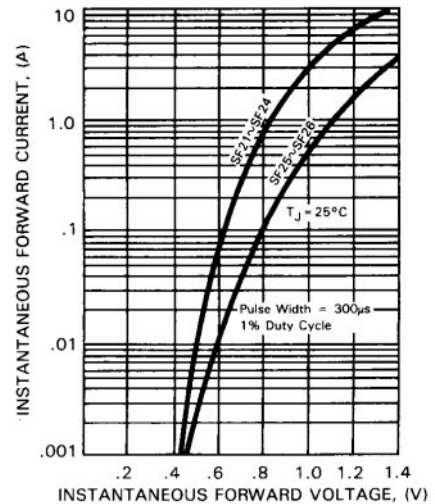


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

